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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,174	12/15/2003	Abdlmonem H. Beitelmal	200312051-1	2155

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/734,174	Applicant(s) BEITEIMAL ET AL.	
	Examiner Tho v. Duong	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 32-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 and 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of applicant's amendment filed 12/21/06 is acknowledged. Claims 11-20 and 22-37 are pending. Claims 1-10 and 32-37 remain withdrawn from further consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13,16-20,22,24,25 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US 6,466,441). Suzuki discloses (figures 5 and 19-20 and column 12, lines 31-51) an electronic system comprising a housing (10) having a first section (615b) being made up part of the cover (612) and a second section (11), wherein the first section is alternatively attachable and detachable to the second section, wherein the first and second section together form an exterior enclosure of the electronic system; a mounting board (14) supported by the second section (11) of the housing, wherein the heat generating component (14a) is mounted on the board; a cooling system having a base (615a) and a plurality of fins (616) configured to dissipate heat generated by the heat generating component (14A); the cooling system being configured to contact the heat generating component when the first section and the second section are attached to each other; the cooling system includes one or more heat pipes or heat sinks (615c,16,17) having a different configuration from one another; the housing (10) includes a relatively open space around the heat generating component and wherein the cooling system

occupies substantially all of the relative open space around the heat generating component; the plurality of fins are configured to have a relatively low height to width aspect ratio; and one or more fan (13) configured to blow air through the plurality of fins. Regarding claim 20, it has been held that the recitation that an element is "configured to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138. In this instant case, when the first section (615) is detached from the second section, the heat generating component (14a) is open on the top and ready for the removal of the heat generating component (14a) from the mounting board through the top by hand or tool (configured to disengage).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-15 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Hinshaw (US 4,884,331). Suzuki substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the aspect ratio is between approximately 6 and 9 and a pressure drop of 0.03 and 0.09 inches of water. Hinshaw discloses (figure 2, column 3, lines 30-34 and column 4, lines 14-26) a heat sink that has a plurality of fins, wherein the aspect ratio of the fins is between 6 to 8 for a purpose of increasing the efficiency of fins on the heat sink. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Hinshaw's teaching in Suzuki's device for a purpose of

increasing the efficiency of fins on the heat sink. Regarding to the pressure drop, the combination heat sink of Suzuki and Hinshaw discloses the claimed structure of low aspect ratio such as 6-8, which makes the heat sink capable of yielding a pressure drop as claimed.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Ohara (US 5,897,178) or Francis (US 6,128,194). Suzuki substantially discloses all of applicant's claimed invention as discussed above except for the limitation that the first section and the second section have a first and mating device. Ohara discloses (figure 2) a computer housing that has a first section and a second section (11,12), each has a respective mating devices (111 and 122) for a purpose securing the first and second sections together to form a housing. Similarly, Francis also discloses (figure 2) a housing that has a first section and a second sections (40,42), wherein each section has a mating device (86,62) for a purpose of securing the two sections together to form a housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use either teaching of Ohara or Francis in Suzuki's device for a purpose of securing the two sections together to form a housing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ishimine et al. (US 6,137,682) discloses an air cooled electronic apparatus.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tho v Duong
Primary Examiner
Art Unit 3744

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March 7, 2007